<u>IN THE UNITED STATES PATENT AND TRADEMARK OFFICE</u>

In re Application of:

Applicant: Toshihiro KOWAKI et al.

Serial No.: 10/565,744   Group Art Unit: 1796

Filed: January 23, 2006   Examiner: DOLLINGER, Michael M

Title: FLAME-RETARDANT POLYESTER FIBERS FOR ARTIFICIAL HAIR

<u>DECLARATION UNDER 37 C.F.R. 1.132</u>

HON. COMMISSIONER OF PATENTS AND TRADEMARKS

WASHINGTON, D.C. 20231

SIR:

I, Masahiko MIHOICHI hereby declare as follows:

Declaration created by:

Name: Masahiko MIHOICHI

Address: c/o KANEKA CORPORATION

Kanekalon Fibers R & D Group

1-8, Miyamae-Machi, Takasago-Cho,

Takasago-Shi, Hyogo, JAPAN

Title: Manager

Career: I graduated from the Faculty of Engineering at Kyoto University, earning a master's degree in March, 1986, joined TOYOBO CO., LTD. in April, 1986 and left the company in July, 1991, joined KANEKA CORPORATION in August, 1991 and have been an employee of this company up to the present time.

Period of experiment: 24/02/2010—03/03/2010

Experiment conditions

Comparative Example 6:

A polyester fiber of Comparative Example 6 was obtained in the same manner as in Example 2 of the present invention except that a phosphorous flame retardant (PX-200) was used in place of the brominated epoxy flame retardant (EC-200).

Comparative Example 7:

A polyester fiber of Comparative Example 7 was obtained in the same manner as in Example 12 of the present invention except that a phosphorous flame retardant (PX-200) was used in place of the brominated epoxy flame retardant (SR-T20000).

Each formulation of polyethylene terephthalate, the flame retardant, and the inorganic fine particles in Comparative Examples 6 and 7 is shown in Table 1 below.

TABLE 1

	Comparative Example	
	6(New)	7(New)
EFG-85A	100	100
EC-200		
SR-T20000		
PX-200	10	16
Tipaque CR-60	0.2	
PKP-53		0.6

Results of Experiment:

Elongation, flame retardance, gloss, transparence, devitrification resistance, combing properties, feeling, surface roughness, iron setting properties, and curl setting properties of obtained polyester fibers of Comparative Examples 6 and 7 were evaluated by the determination methods described in the specification of the present application. The evaluation results are shown in Table 2.

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TABLE 2

		Comparative Example	
		6(New)	7(New)
Nozzle shape		Round	Round
Size(dtex)		53	53
Amount of fiber treating agents attached(%omf)	KWC-Q	0.2	0.2
	KRE-103	0.2	0.2
Strength(cN/dtex)		2.1	2.0
Elongation(%)		65	65
Flame retardance	Flammability	Fair	Fair
	Drip resistance	Bad	Bad
Gloss		Fair	Fair
Transparence		Good	Fair
Devitrification resistance		Fair	Fair
Combing properties		Bad	Bad
Feeling	Stickiness reduction	Bad	Bad
	Smooth feeling	Bad	Bad
Surface roughness	Arithmetic mean roughness(μm)	0.05	0.09
	Ten-point mean roughness(μm)	0.4	0.6
Iron setting properties (180℃)	Adhesion	Bad	Bad
	Crimping/end breakage	Fair	Fair
	Rod out	Bad	Bad
	Holding properties	Good	Good
Curl setting properties (110℃)		Fair	Fair

I declare under the penalty of perjury of the laws of the United States of America that the foregoing is true and correct to the best of my information and belief.

Signed this March 8, 2010, at Hyogo, JAPAN

Masahiko Mihoichi

Masahiko MIHOICHI